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REMARKS

This is a full and timely response to the non-final Official Action mailed September 7, 2005. Reconsideration of the application in light of the above amendments and the following remarks is respectfully requested.

CLAIM STATUS:

Various claims are amended herein. No claims are cancelled by the present paper. New claim 54 is added. Original claims 17, 18 and 42-45 were cancelled previously. Thus, claims 1-16, 19-41 and 46-54 are currently pending for further action.

ALLOWABLE SUBJECT MATTER:

In the recent Office Action, the Examiner allowed claims 10-13, 15, 16, 21-41 and 49-53. Applicant wishes to thank the Examiner for the allowance of these claims.

The Examiner further indicated the presence of allowable subject matter in claims 20 and 47. Applicant wishes to thank the Examiner for this identification of allowable subject matter.

Applicant agrees with the Examiner's conclusions regarding the patentability of these claims, without necessarily agreeing with or acquiescing in the Examiner's reasoning. In particular, Applicant believes that the indicated claims are allowable because the prior art fails to teach, anticipate or render obvious the subject matter claimed, independent of how the claims are paraphrased.

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PRIOR ART:

Claim 46 was rejected as anticipated under 35 U.S.C. § 102(b) by U.S. Patent No. 5,796,526 to Anderson ("Anderson"). For at least the following reasons, this rejection is respectfully traversed.

Claim 46 now recites:

A system for correcting a color deficiency of a light source in an image projection system comprising:
means for emitting a first light to generate a substantially white projection beam, wherein said first light is color-deficient over one or more specific portions of a visible spectrum;
means for emitting a second light at frequencies matching one or more of said portions of said visible spectrum over which said first light is deficient; and
a total internal reflection prism for integrating said first and second lights;
wherein said integrating said first and second lights provides a projection beam in which said color deficiency of said first light is corrected by said second light.

In contrast, Anderson teaches a system in which four light sources (31) each produce a different particular color. (Anderson, col. 5, lines 50-56). Anderson does not teach or suggest the claimed means for emitting a first light source to generate a substantially white projection beam that is color-deficient over only one or more specific portions of the visible spectrum and a matched means for emitting a second light at frequencies matching one or more of the portions of the visible spectrum over which the first light is deficient so as to produce a projection beam in which the color deficiency of the first light is corrected by the second light.

"A claim is anticipated [under 35 U.S.C. § 102] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). See M.P.E.P. § 2131. For at least this reason, the rejection of claim 46 and its dependent claims should be reconsidered and withdrawn.

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Claims 1-4 and 6-9 were rejected as unpatentable under § 103(a) over the combined teachings of U.S. Patent No. 6,341,876 to Moss et al. ("Moss") and U.S. Patent No. 4,322,128 to Brake ("Brake"). For at least the following reasons, that rejection is respectfully traversed.

Claim 1 recites:

A light integrating system comprising:
at least one total internal reflection (TIR) prism; and
a light integrating device disposed to collect and homogenize light exiting
from said TIR prism;
*wherein surfaces of said at least one TIR prism that are not on an optical axis
of said system have a coating to minimize light loss.*
(emphasis added).

Applicant noted previously that, under the language of claim 1, surfaces of the TIR prism that are *not* on the optical axis of the system are coated to minimize light loss.

Brake is cited by the Office Action for the teaching of applying a coating to a prism in an optical system. (Action of 9/7/05, p. 3). However, Brake teaches applying a coating *only* to the "hypotenuse surface of the prism." (Brake, col. 4, line 67 – col. 5, line 3).

Moss, at Fig. 7, teaches a system in which a prism (709, 711) receives light from a light source (701, 703) along an optical axis of the light source. The hypotenuse side of the prism bends that light, *and the optical axis of the system*, into an integrator rod (705). If the teachings of Moss and Brake are combined as proposed in the Office Action, the result would be a reflective coating, as taught by Brake, on the hypotenuse surface of the prisms (709, 711) taught by Moss. As indicated, those hypotenuse surfaces are *on* the optical axis of the system in contrast to the system claimed.

In response to this, the Office Action argues "that hypotenuse reflective surfaces of the prisms [709] and [711] are not located on an optical axis the system. The optical axis of

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the system is passed along the integrator [705]. Integrated light exits the system along this axis." (Action of 9/7/05, p. 9). This is clearly incorrect.

Referring to Moss at Fig. 3, the hypotenuse reflective surfaces of the prisms (709) and (711) are clearly aligned respectively with, and "on," the optical axes of light sources (701) and (703). The hypotenuse reflective surfaces of the prisms (709) and (711) are also clearly aligned with and "on" the optical axis of the integrator (705). It is unclear how the Office Action can conclude that the hypotenuse reflective surfaces of the prisms (709 and 711) are not located on an optical axis the system.

Moreover, as would be well understood by those of ordinary skill in the art, the optical axis of a "system" is not just the optical axis of a single component. The optical axis of a system can bend and turn due to the optical properties of the system components. The definition of an optical axis is, "in an optical system, the line formed by the coinciding principal axes of the series of optical elements." (http://en.wikipedia.org/wiki/Optical_axis).

The hypotenuse reflective surfaces of the prisms (709 and 711) of Moss are clearly on, and a part of, the optical axis of the system. If the teachings of Moss and Brake are combined as proposed, the coating taught by Moss would be added, as Moss instructs, to the on-axis hypotenuse surfaces of the prisms (709 and 711). Consequently, the combination of Moss and Brake does not teach or suggest the claimed "surfaces of said at least one TIR prism *that are not on an optical axis of said system* [and] have an aluminized coating to minimize light loss." (emphasis added).

"To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." M.P.E.P. § 2143.03. Accord. M.P.E.P. § 706.02(j). For at least this reason, the rejection of claim 1 and its dependent claims should be reconsidered and withdrawn.

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Claim 5 was rejected under 35 U.S.C. § 103(a) over the combined teachings of Moss, Brake and U.S. Patent No. 6,419,365 to Potekev et al. Claim 14 was rejected under 35 U.S.C. § 103(a) over the combined teachings of Moss, Brake and Anderson. These rejections are respectfully traversed for at least the same reasons given above with respect to the deficient rejection of claim 1.

Claim 19 was rejected under 35 U.S.C. § 103(a) over the teachings of Anderson taken alone. This rejection is respectfully traversed for at least the same reasons given above with respect to independent claim 46. Specifically, claim 19 recites:

A method of correcting a color deficiency of a light source comprising:
emitting light from a first light source into a total internal reflection (TIR) prism, wherein said light from said first light source is a substantially white projection beam that is color-deficient over one or more specific portions of a visible spectrum;
emitting light from a second light source into said TIR prism, wherein said second light source is selected to provide frequencies matching one or more of said portions of said visible spectrum over which said first light source is deficient; and
integrating light from said first and second light sources with said TIR prism;
wherein said integrating light from said first and second light sources provides a projection beam in which said color deficiency of said first light source is corrected by said second light source

As demonstrated above, Anderson does not teach or suggest a method of correcting a color deficiency of a light source. Anderson does not teach or suggest “emitting light from a first light source into a total internal reflection (TIR) prism, wherein said light from said first light source is a substantially white projection beam that is color-deficient over one or more specific portions of a visible spectrum.” Anderson does not teach or suggest “emitting light from a second light source into said TIR prism, *wherein said second light source is selected to provide frequencies matching one or more of said portions of said visible spectrum over which said first light source is deficient.*” (emphasis added). And, Anderson does not teach

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or suggest "integrating light from said first and second light sources [to provide] a projection beam in which said color deficiency of said first light source is corrected by said second light source."

"To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." M.P.E.P. § 2143.03. Accord. M.P.E.P. § 706.02(j). For at least this reason, the rejection of claim 19 should be reconsidered and withdrawn.

Claim 48 was rejected under 35 U.S.C. § 103(a) over the combined teachings of Anderson and Moss. This rejection is respectfully traversed for at least the same reasons given above with respect to independent claim 47.

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CONCLUSION:


The newly added claim 54 is thought to be patentable over the prior art of record for at least the same reasons given above with respect to the independent claims 19 and 46.

Therefore, examination and allowance of the newly added claim is respectfully requested.

For the foregoing reasons, the present application is thought to be clearly in condition for allowance. Accordingly, favorable reconsideration of the application in light of these remarks is courteously solicited. If the Examiner has any comments or suggestions which could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the number listed below.

Respectfully submitted,

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I hereby certify that this correspondence is being transmitted to the Patent and Trademark Office facsimile number 571-273-8300 on December 5, 2005. Number of Pages: 22


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